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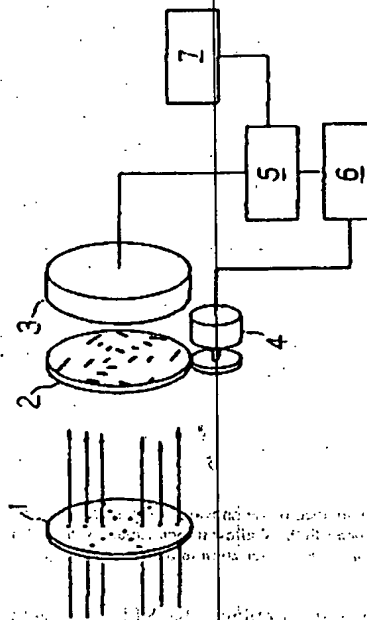
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APPLICANT : ULVAC CORP;

INVENTOR : NIIKURA KOICHI;

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TITLE : BEAM PARALLELISM MEASURING
DEVICE FOR USE IN ION IMPLANTING
DEVICE



ABSTRACT : PURPOSE: To measure the parallelism of an ion beam in a short time without breaking the vacuum of an ion implanting device by providing a first mask plate and a second mask plate with a predetermined distance between them, and measuring the parallelism of the beam according to a synchronizing signal from beam scanning and the shift of the slits of the second mask plate.

CONSTITUTION: A beam current to be measured by a Faraday cup 3 is detected by a beam amplifier 5 connected to the Faraday cup 3, and the controller 6 of a driving motor 4 and a scanning power source 7 are provided. A first mask plate 1 and a rotatable second mask plate 2 are integrated into an ion beam line in front of the Faraday cup 3, with a predetermined distance between them. In accordance with the synchronizing signal of beam scanning, the rotatable second mask plate 2 is rotated and its angle of rotation when the beam current is at its maximum is detected according to the shift of its slits caused by rotation, thereby measuring the parallelism of the ion beam. Thus the parallelism of the ion beam can be freely and readily measured even during operation of the ion implanting device.

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